

**TRANSLATION**

**PATENT COOPERATION TREATY**

**PCT**

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>BLA/Bedamax</b>	<b>FOR FURTHER ACTION</b>		See Form PCT/IPEA/416
International application No. <b>PCT/DE2004/002470</b>	International filing date (day/month/year) <b>05.11.2004</b>	Priority date (day/month/year) <b>06.11.2003</b>	
International Patent Classification (IPC) or national classification and IPC <b>E04D11/02, E04F15/18, E04F15/08</b>			
Applicant <b>BLANKE GMBH &amp; CO. KG</b>			

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <b>8</b> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (<i>sent to the applicant and to the International Bureau</i>) a total of <b>7</b> sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p> <p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input checked="" type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input checked="" type="checkbox"/> Box No. VIII Certain observations on the international application</p>
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Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.  
PCT/DE2004/002470

## Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

This report is based on translations from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of:

international search (Rule 12.3 and 23.1(b))  
 publication of the international application (Rule 12.4)  
 international preliminary examination (Rule 55.2 and/or 55.3)

2. With regard to the **elements** of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

the international application as originally filed/furnished  
 the description:  
 pages 1, 3, 5-12 as originally filed/furnished 29.11.2005 with letter of 25.11.2005  
 pages\* 2, 2a, 4 received by this Authority on \_\_\_\_\_  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

the claims:  
 nos. \_\_\_\_\_ as originally filed/furnished  
 nos.\* \_\_\_\_\_ as amended (together with any statement) under Article 19  
 nos.\* 1-23 received by this Authority on 10.02.2006 by fax  
 nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

the drawings:  
 sheets 1/2, 2/2 as originally filed/furnished  
 sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3.  The amendments have resulted in the cancellation of:

the description, pages \_\_\_\_\_  
 the claims, nos. \_\_\_\_\_  
 the drawings, sheets/figs \_\_\_\_\_  
 the sequence listing (*specify*): \_\_\_\_\_  
 any table(s) related to sequence listing (*specify*): \_\_\_\_\_

4.  This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

the description, pages \_\_\_\_\_  
 the claims, nos. \_\_\_\_\_  
 the drawings, sheets/figs \_\_\_\_\_  
 the sequence listing (*specify*): \_\_\_\_\_  
 any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.  
PCT/DE2004/002470

Box No. V **Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

## 1. Statement

Novelty (N)	Claims	1–23	YES
	Claims	_____	NO
Inventive step (IS)	Claims	1–23	YES
	Claims	_____	NO
Industrial applicability (IA)	Claims	1–23	YES
	Claims	_____	NO

## 2. Citations and explanations (Rule 70.7)

1. The following documents are cited in the search report:

**D1:** EP-A-0 386 324  
**D2:** FR-A-2 774 715  
**D3:** DE 88 14 650 U1  
**D4:** DE 100 60 751 C1  
**D5:** WO 99/54571 A

NOVELTY (PCT ARTICLE 33(2))

AND INVENTIVE STEP (PCT ARTICLE 33(3))

2. The subject matter of **claims 1 to 23** is novel (PCT Article 33(2)) and involves an inventive step (PCT Article 33(3)).

2.1 Document **D2**, which is considered to be the closest prior art relating to these claims, discloses a multilayered decoupling and sealing system,

- (a) suitable for laying ceramic coverings using the thin-bed method,
- (b) having a liquid-impermeable sealing layer 6 (see page 2, line 18),
- (c) wherein on top of the sealing layer there is an

Box No. V      **Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

anchoring layer 2 formed by a mesh-like structural element for accommodating a filler material which is applied to the upper surface of the decoupling and sealing system, and which is malleable while it is being worked and subsequently hardens within the anchoring layer (see page 3, lines 4 to 5).

**D2** explicitly states that the system allows decoupling between the tiles and the substrate (see claim 1 and page 1, lines 2, 4 and 28, in particular the words "*désolidarisation*" and "*désolidariser*" ["separation" and "separate"]). Also, layer 6 is liquid-impermeable (see page 2, line 18, and claim 3), which means it undoubtedly performs a sealing function. Layer 6 is preferably made of a polyethylene sheet.

2.2 Thus the subject matter of **claim 1** differs from the known system in that:

- (d) the liquid-impermeable sealing layer is a nonwoven anchoring mat or a polymer sealing layer with a nonwoven anchoring mat on each side;
- (e) at least some parts of a reinforcement layer (5) are fixed to the anchoring layer (2, 3).

The subject matter of **claim 1** is therefore novel (PCT Article 33(2)).

2.3 The problem addressed by the present invention is that of how to modify the multilayered decoupling and sealing system of **D2** so as to improve the mechanical load-bearing capacity and the anchoring of the tile layer.

Box No. V      **Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

2.4 This problem is solved by the system defined in **claim 1**.

Because of the nonwoven anchoring mat in the sealing layer (feature (d)), the anchoring layer above it (feature (c)) and the reinforcement layer laid on top and fixed in place (feature (d)), the joint mortar applied to the upper surface bonds fully with the system and thus ensures the required load-bearing capacity.

The reinforcement layer embedded in the hardened filler material performs a stiffening and reinforcing function to bear mechanical loads applied from above. Thus the load is borne by layer thicknesses that are significantly greater than those in known decoupling and sealing systems, because the full thickness of the anchoring layer helps to carry mechanical loads and also the reinforcement layer is strengthened.

2.5 The subject matter of **claim 1** involves an inventive step because the claimed solution is not obvious from the prior art.

Document **D1** describes a bonding means, not a decoupling and sealing system. The bonding means is in the form of a sheet consisting of a cold-setting bituminous layer 1, a removable film 2 on its lower surface, and a two-ply layer 3a/3b on its upper surface. The first ply 3a is a nonwoven mat. The second ply 3b is a scrim in the form of a grid or mesh. The two-ply layer has a relief structure which provides a good base for normal thin-bed mortars and

Box No. V **Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

thin-bed tile adhesives. The open layer 3b evidently serves as anchoring for the tile adhesive, which envelops the open layer 3b and clings to the mesh. The two plies 3a and 3b thus correspond approximately to the nonwoven anchoring mat in the sealing layer (feature (d)) and the upper anchoring layer (feature (c)) in the system according to the present invention. However, **D1** does not describe a reinforcement layer corresponding to feature (e). Hence a combination of the teachings of **D1** and **D2** does not lead to the claimed solution.

Document **D3** describes a prefabricated polymer sealing sheet laminated on both sides with a nonwoven material with protruding individual fibres. The fibres are applied to the sealing sheet during the manufacturing process and are designed to improve the bond between the sealing sheet and the cement mortar that is applied when the tiles are laid. Thus the sealing layer of D3 has feature (d); however, there is no anchoring layer (feature (c)) and no reinforcement layer (feature (e)). Hence a combination of the teachings of **D2** and **D3** does not lead to the claimed solution.

2.6 **Claims 2 to 23** are dependent on **claim 1**, and therefore their subject matter is also novel and inventive.

INDUSTRIAL APPLICABILITY (PCT ARTICLE 33(4))

3. The subject matter of **claims 1 to 23** is industrially applicable.

## Box No. VII     Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

4. **Claim 1** is drafted in the two-part form, but the aforementioned feature (c) should not have been placed in the characterising part of the claim because it is disclosed in document **D2** together with the features set out in the preamble (PCT Rule 6.3(b)).
  
5. The description is not consistent with the claims (PCT Rule 5.1(a) (iii)).

## Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

6. The exemplary embodiments of the invention shown in the drawings do not show a sealing layer "made of a nonwoven anchoring mat or a polymer sealing layer with a nonwoven anchoring mat on each side", and therefore they are not covered by the claims.

This inconsistency between the claims and the description creates doubt regarding the subject matter for which protection is sought, and as a result the claims are not clear.

Consequently the requirements of PCT Article 6 are not met.